

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029



*one time
FFS 03
bill*

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

June 10, 1999

Mr. Steve Morrow, Project Manager
Olin Chemical
1186 Lower River Road
Charleston, TN 37310

Mr. Kevin A. Gaynor, Esquire
Vinson & Elkins
1455 Pennsylvania Avenue, N.W.
Washington, DC 20004-1008

Mr. Douglas A. Johns, Esquire
General Electric Company
One Plastics Avenue
Pittsfield, MA 01201

James A. Vroman, Esquire
Jenner & Block
One IBM Plaza
Chicago, IL 60611-3608

Mr. Charles E. Merrill, Esquire
Husch & Eppenberger
100 N. Broadway
Suite 1300
St. Louis, MO 63102

Dear Messrs. Morrow, Gaynor, Johns, Vroman and Merrill:

The enclosed collection invoice is submitted to you by the U.S. Environmental Protection Agency (EPA) for payment of the costs outlined therein. This invoice includes an accounting of Focused Feasibility Study oversight costs for Operable Unit (OU) No. 1 incurred by EPA for activities pertaining to the Ordnance Works Site, West Virginia. This invoice is solely for the recovery of EPA's oversight costs. Any fine and/or penalties due will be billed separately.

EPA seeks recovery of the Focused Feasibility Study oversight costs for OU No. 1 contained in the enclosed invoice pursuant to the provisions of the Administrative Order on Consent, Docket No. III-97-110-DC, Section XX.A.

Attached to the enclosed invoice is a Narrative Cost Summary Report entitled, "Focused Feasibility Study Costs for OU No. 1 from 10/20/97 to 03/31/99." The report provides an accounting of Focused Feasibility Study oversight costs for OU No. 1 incurred by the United

States in connection with the site for which EPA seeks reimbursement. The stated amount of \$88,903.80 is due to be paid on or before July 13, 1999. Please make your check payable to:

EPA-Hazardous Substance Superfund

Forward your payment to:

EPA Region III
Superfund Accounting
P.O. Box 360515
Pittsburgh, PA 15251-6515

If express mail or a messenger service will be used to deliver your payment, the street address for our bank is below:

Mellon Bank
Three Mellon Bank Center, Room 2713
Pittsburgh, PA 15219
Attn: EPA, Region III
P.O. Box 360515


To enable EPA to accurately record receipt of your payment by the established due date, the following information must be included on the face of your payment check:

Site Name/Location: Ordnance Works Site, WV.
Account Number: 03B5BF00
Receivable Account Number: 032999T091
Docket No. III-97-110-DC.

Any questions or problems regarding this billing should be directed to:

Steve Pandza
U.S. Environmental Protection Agency (3PM30)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5178

Thank you for your cooperation.

Sincerely,

Barbara A. Borden
Office of the Comptroller

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

BILL FOR COLLECTION

Mr. Steve Morrow, Project Manager
Olin Chemical
1186 Lower River Road
Charleston, TN 37310

Mr. Kevin A. Gaynor, Esquire
Vinson & Elkins
1455 Pennsylvania Avenue, N.W.
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Chicago, IL 60611-3608

Mr. Charles E. Merrill, Esquire
Husch & Eppenger
100 N. Broadway
Suite 1300
St. Louis, MO 63102

| <u>BD Number</u> | <u>Date</u> | <u>Amount</u> |
|------------------|---------------|---------------|
| 032999T091 | June 10, 1999 | \$88,903.80 |
| | Total | \$88,903.80 |

Description: Recovery of Focused Feasibility Study oversight costs for OU No. 1 from 10/20/97 to 03/31/99 at the Ordnance Works Site, West Virginia pursuant to the Administrative Order On Consent, Docket No. III-90-27-DC, Section XX.A.

Payment Due Date: July 13, 1999

Forward Payment To: EPA, Region III
Superfund Accounting
PO Box 360515
Pittsburgh, PA 15251-6515

Interest will be assessed at the rate of 4.530% from the bill date on any amounts unpaid by the due date.

BD 032999T091 99 T 03W 03B5BF00

Customer Service Hotline: 1-800-438-2474

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

NARRATIVE COST SUMMARY REPORT
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

1. The United States Environmental Protection Agency has incurred at least \$8,993.03 for **Regional Payroll Expenses**.
2. The United States Environmental Protection Agency has incurred at least \$0.00 for **Headquarters Payroll Expenses**.
3. The United States Environmental Protection Agency has incurred at least \$18,354.00 for **Indirect Costs**.
4. The United States Environmental Protection Agency has incurred at least \$813.78 for **Regional Travel Expenses**.
5. The United States Environmental Protection Agency has incurred at least \$0.00 for **Headquarters Travel Expenses**.
6. The United States Environmental Protection Agency has incurred costs of at least \$21,042.25 for **Environmental Services Assistance Teams (ESAT)** contract expenditures. The total represents the amount spent under the **Lockheed Env Systems & Tech Co** Contract.
7. The United States Environmental Protection Agency has incurred costs of at least \$1,369.10 for **Interagency Agreement (IAG) Costs** contract expenditures. The total represents the amount spent under the **U.S. Army Cors Of Engineers** Contract.
8. The United States Environmental Protection Agency has incurred costs of at least \$4,098.15 for **Interagency Agreement (IAG) Costs** contract expenditures. The total represents the amount spent under the **U.S Army Corp Of Engineers** Contract.
9. The United States Environmental Protection Agency has incurred costs of at least \$17,757.49 for **Site Assessment Technical Assistance** contract expenditures. The total represents the amount spent under the **Roy F. Weston, Inc.** Contract.
10. The United States Environmental Protection Agency has incurred costs of at least \$16,476.00 for **State Cooperative Agreement (SCA) Costs** contract expenditures. The total represents the amount spent under the **State Wv Div Of Natural Resources** Cooperative Agreement.

Total EPA Site Costs

\$ 88,903.80

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

ITEMIZED COST SUMMARY REPORT
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

| | |
|--|--------------------------------|
| REGIONAL PAYROLL COSTS | \$ 8,993.03 |
| HEADQUARTERS PAYROLL COSTS | 0.00 |
| EPA INDIRECT COSTS..... | 18,354.00 |
| REGIONAL TRAVEL COSTS..... | 813.78 |
| HEADQUARTERS TRAVEL COSTS..... | 0.00 |
| ENVIRONMENTAL SERVICES ASSISTANCE TEAMS (ESAT) | |
| LOCKHEED ENV SYSTEMS & TECH CO (68-D6-0002)..... | 21,042.25 |
| INTERAGENCY AGREEMENT (IAG) COSTS | |
| U.S. ARMY CORPS OF ENGINEERS (DW96943750)..... | 1,369.10 |
| U.S ARMY CORP OF ENGINEERS (DW96943751)..... | 4,098.15 |
| SITE ASSESSMENT TECHNICAL ASSISTANCE | |
| ROY F. WESTON, INC. (68-S5-3002)..... | 17,757.49 |
| STATE COOPERATIVE AGREEMENT (SCA) COSTS | |
| WV DIV OF NATURAL RESOURCES (99340301)..... | 16,476.00 |
| TOTAL SITE COSTS: | |
| | ----- \$ 88,903.80 ===== |

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REGIONAL PAYROLL COSTS
 ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
 COSTS FROM 10/20/97 THRU 3/31/99

| Employee Name | FY | PP | Office Code | Payroll Hours | Payroll Amount |
|--|------|----|-------------|---------------|----------------|
| GOLDMAN, ANDREW S. ATTORNEY ADVISOR (GENERAL) | 1998 | 23 | 03K | 1.00 | 45.37 |
| | | | | ----- | ----- |
| | | | | 1.00 | 45.37 |
| JAFOLLA, NANCY R. | 1998 | 04 | 03W | 6.00 | 204.53 |
| RIOS, NANCY | 1998 | 05 | 03W | 7.00 | 238.62 |
| TOXICOLOGIST | 1998 | 17 | 03W | 7.00 | 253.11 |
| | 1998 | 19 | 03W | 11.00 | 397.72 |
| | | | | ----- | ----- |
| | | | | 31.00 | 1,093.98 |
| LUDZIA, PETER J. ENVIRONMENTAL ENGINEER | 1998 | 03 | 03W | 4.00 | 181.84 |
| | 1998 | 04 | 03W | 5.50 | 250.05 |
| | 1998 | 06 | 03W | 3.00 | 140.01 |
| | 1998 | 20 | 03W | 2.50 | 126.16 |
| | | | | ----- | ----- |
| | | | | 15.00 | 698.06 |
| RUNDELL, BRUCE M. GEOLOGIST | 1998 | 05 | 03W | 10.00 | 394.88 |
| | 1998 | 18 | 03W | 5.00 | 202.90 |
| | | | | ----- | ----- |
| | | | | 15.00 | 597.78 |
| WHITTINGTON, MELISSA J. ENVIRONMENTAL SCIENTIST | 1998 | 02 | 03W | 18.50 | 652.67 |
| | 1998 | 03 | 03W | 31.00 | 1,093.66 |
| | 1998 | 04 | 03W | 7.00 | 254.45 |
| | 1998 | 05 | 03W | 17.50 | 636.22 |
| | 1998 | 06 | 03W | 21.50 | 781.61 |
| | 1998 | 07 | 03W | 3.50 | 127.24 |
| | 1998 | 08 | 03W | 4.00 | 149.46 |
| | 1998 | 09 | 03W | 0.50 | 18.68 |
| | 1998 | 10 | 03W | 1.00 | 37.38 |
| | 1998 | 11 | 03W | 3.50 | 130.79 |
| | 1998 | 12 | 03W | 4.00 | 149.46 |
| | 1998 | 13 | 03W | 3.50 | 130.79 |
| | 1998 | 14 | 03W | 6.50 | 242.88 |
| | 1998 | 15 | 03W | 3.50 | 130.79 |
| | 1998 | 16 | 03W | 3.00 | 112.10 |
| | 1998 | 17 | 03W | 0.50 | 18.68 |

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REGIONAL PAYROLL COSTS
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

| Employee Name | FY | PP | Office Code | Payroll Hours | Payroll Amount |
|-------------------------|------|----|----------------|------------------|-------------------|
| WHITTINGTON, MELISSA J. | 1998 | 18 | 03W | 2.00 | 74.73 |
| | 1998 | 19 | 03W | 15.00 | 560.51 |
| | 1998 | 20 | 03W | 15.50 | 579.20 |
| | 1998 | 21 | 03W | 4.50 | 168.16 |
| | 1998 | 22 | 03W | 5.50 | 205.53 |
| | 1998 | 23 | 03W | 4.50 | 168.16 |
| | 1998 | 24 | 03W | 3.50 | 134.69 |
| | | | | ----- | ----- |
| | | | | 179.50 | 6,557.84 |
| REGIONAL PAYROLL COSTS | | | | ----- | ----- |
| | | | | 241.50 | \$8,993.03 |
| | | | | ===== | ===== |

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HEADQUARTERS PAYROLL COSTS
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

| Employee Name | FY | PP | Office Code | Payroll Hours | Payroll Amount |
|----------------------------|----|----|----------------|------------------|-------------------|
| | | | | ----- | ----- |
| HEADQUARTERS PAYROLL COSTS | | | | 0.00 | \$0.00 |
| | | | | ===== | ===== |

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

EPA INDIRECT COSTS
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

| <u>Fiscal Year</u> | <u>Payroll Hours</u> | <u>Indirect Rate</u> | <u>Indirect Costs</u> |
|--------------------|----------------------|----------------------|-----------------------|
| 1998 | 241.50 | 76 | 18,354.00 |

EPA INDIRECT COSTS

| | |
|--------|--------------|
| ----- | ----- |
| 241.50 | \$ 18,354.00 |
| ===== | ===== |

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

EPA INDIRECT COSTS
 ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
 COSTS FROM 10/20/97 THRU 3/31/99

| Employee Name | Fiscal Year | Pay Period | Org Code | Payroll Hours | Ind. Rate | Indirect Costs |
|-------------------------|----------------|---------------|-------------|------------------|--------------|-------------------|
| GOLDMAN, ANDREW S. | 1998 | 23 | 03K | 1.00 | 76 | 76.00 |
| | | | | ----- | | ----- |
| | | | | 1.00 | | 76.00 |
| JAFOLLA, NANCY R. | 1998 | 04 | 03W | 6.00 | 76 | 456.00 |
| | 1998 | 05 | 03W | 7.00 | 76 | 532.00 |
| | 1998 | 17 | 03W | 7.00 | 76 | 532.00 |
| | 1998 | 19 | 03W | 11.00 | 76 | 836.00 |
| | | | | ----- | | ----- |
| | | | | 31.00 | | 2,356.00 |
| LUDZIA, PETER J. | 1998 | 03 | 03W | 4.00 | 76 | 304.00 |
| | 1998 | 04 | 03W | 5.50 | 76 | 418.00 |
| | 1998 | 06 | 03W | 3.00 | 76 | 228.00 |
| | 1998 | 20 | 03W | 2.50 | 76 | 190.00 |
| | | | | ----- | | ----- |
| | | | | 15.00 | | 1,140.00 |
| RUNDELL, BRUCE M. | 1998 | 05 | 03W | 10.00 | 76 | 760.00 |
| | 1998 | 18 | 03W | 5.00 | 76 | 380.00 |
| | | | | ----- | | ----- |
| | | | | 15.00 | | 1,140.00 |
| WHITTINGTON, MELISSA J. | 1998 | 02 | 03W | 18.50 | 76 | 1,406.00 |
| | 1998 | 03 | 03W | 31.00 | 76 | 2,356.00 |
| | 1998 | 04 | 03W | 7.00 | 76 | 532.00 |
| | 1998 | 05 | 03W | 17.50 | 76 | 1,330.00 |
| | 1998 | 06 | 03W | 21.50 | 76 | 1,634.00 |
| | 1998 | 07 | 03W | 3.50 | 76 | 266.00 |
| | 1998 | 08 | 03W | 4.00 | 76 | 304.00 |
| | 1998 | 09 | 03W | 0.50 | 76 | 38.00 |
| | 1998 | 10 | 03W | 1.00 | 76 | 76.00 |
| | 1998 | 11 | 03W | 3.50 | 76 | 266.00 |
| | 1998 | 12 | 03W | 4.00 | 76 | 304.00 |
| | 1998 | 13 | 03W | 3.50 | 76 | 266.00 |
| | 1998 | 14 | 03W | 6.50 | 76 | 494.00 |
| | 1998 | 15 | 03W | 3.50 | 76 | 266.00 |
| | 1998 | 16 | 03W | 3.00 | 76 | 228.00 |
| | 1998 | 17 | 03W | 0.50 | 76 | 38.00 |
| | 1998 | 18 | 03W | 2.00 | 76 | 152.00 |

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EPA INDIRECT COSTS
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

| Employee Name | Fiscal Year | Pay Period | Org Code | Payroll Hours | Ind. Rate | Indirect Costs |
|-------------------------|-------------------------|---------------|-------------|------------------|--------------|-------------------|
| WHITTINGTON, MELISSA J. | 1998 | 19 | 03W | 15.00 | 76 | 1,140.00 |
| | 1998 | 20 | 03W | 15.50 | 76 | 1,178.00 |
| | 1998 | 21 | 03W | 4.50 | 76 | 342.00 |
| | 1998 | 22 | 03W | 5.50 | 76 | 418.00 |
| | 1998 | 23 | 03W | 4.50 | 76 | 342.00 |
| | 1998 | 24 | 03W | 3.50 | 76 | 266.00 |
| | | | | ----- | | ----- |
| | | | | 179.50 | | 13,642.00 |
| | | | | ----- | | ----- |
| | Total Fiscal Year 1998: | | | 241.50 | | 18,354.00 |
| | | | | ----- | | ----- |
| EPA INDIRECT COSTS | | | | ----- | | ----- |
| | | | | 241.50 | \$ | 18,354.00 |
| | | | | ===== | | ===== |

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

REGIONAL TRAVEL COSTS
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

| Name | Travel Voucher Number | Treasury Schedule | Treasury Schedule Date | Travel Cost |
|--|-----------------------------|----------------------|------------------------------|-----------------------------|
| RUNDELL, BRUCE M. GEOLOGIST | T4395716 | A98005 | 01/07/1998 | 408.10 |
| | | | | ----- 408.10 |
| WHITTINGTON, MELISSA J. ENVIRONMENTAL SCIENTIST | T4306455 | ACHA97364 | 12/30/1997 | 405.68 |
| | | | | ----- 405.68 |
| REGIONAL TRAVEL COSTS | | | | ----- \$ 813.78 ===== |

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HEADQUARTERS TRAVEL COSTS
ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

| Name | Travel Voucher Number | Treasury Schedule | Treasury Schedule Date | Travel Cost |
|---------------------------|-----------------------------|----------------------|------------------------------|----------------|
| HEADQUARTERS TRAVEL COSTS | | | | 0.00 ===== |

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

ENVIRONMENTAL SERVICES ASSISTANCE TEAMS (ESAT)

CONTRACTOR : LOCKHEED ENV SYSTEMS & TECH CO
CONTRACT NUMBER : 68-D6-0002
PROJECT OFFICER : COLLEEN K. WALLING
DATES OF SERVICE : FROM :03/01/1998 TO :03/31/1998
SUMMARY OF SERVICE : SEE CONTRACTOR INFO. WHICH FOLLOWS LIST OF VOUCHERS
TOTAL COSTS : \$ 21,042.25

DOCUMENTATION : Copies of Applicable Paid Vouchers and Treasury Schedules

| VOUCHER NUMBER | VOUCHER DATE | VOUCHER AMOUNT | TREASURY SCHEDULE NUMBER AND DATE | SITE AMOUNT | ANNUAL ALLOCATION |
|-------------------|-----------------|-------------------|--------------------------------------|-------------------|----------------------|
| 06136653 | 04/10/1998 | 417,563.94 | R8701 06/11/1998 | 8,688.72 | 12,353.53 |
| | | | | ----- 8,688.72 | ----- 12,353.53 |

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

ENVIRONMENTAL SERVICES ASSISTANCE TEAMS (ESAT)

CONTRACTOR : LOCKHEED ENV SYSTEMS & TECH CO

CONTRACT NUMBER : 68-D6-0002

| VOUCHER NUMBER | SCHEDULE NUMBER | RATE TYPE | ALLOCATION RATE |
|-------------------|--------------------|-----------------------|--------------------|
| 06136653 | R8701 | National- Provisional | 1.421789 |

Contractor Information

WORK ASSIGNMENT NO.: 03-98-201

DESCRIPTION OF WORK:

- Eleven aqueous samples from the ORDNANCE WORK (REQ98081) site were analyzed for the presence of volatile organic compounds amenable to purge and trap and identifiable by mass spectrometry. The asamples were collected January 27, 28, 29 and 30, 1998. These samples were analyzed February 4 and 5, 1998 using a concolidated method derived from EPA Methods SDWA 524.2, NPDES 624, RCRA 8260 and the Superfund CLP Statement of Work.

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

INTERAGENCY AGREEMENT (IAG) COSTS

FEDERAL AGENCY : U.S. ARMY CORPS OF ENGINEERS
IAG NUMBER : DW96943750
PROJECT OFFICER : MELISSA WHITTINGTON
DATES OF SERVICE : FROM :09/01/1997 TO :03/31/1998
SUMMARY OF SERVICE : SEE CONTRACTOR INFO. WHICH FOLLOWS LIST OF VOUCHERS
TOTAL COSTS : \$ 1,369.10

DOCUMENTATION : Copies of Applicable Paid Vouchers and Treasury Schedules

| VOUCHER NUMBER | VOUCHER DATE | VOUCHER AMOUNT | TREASURY SCHEDULE NUMBER AND DATE | SITE AMOUNT |
|-------------------|-----------------|-------------------|--------------------------------------|----------------|
| 01501407 | 11/01/1997 | 326.92 | A98014 01/16/1998 | 326.92 (1) |
| 01501660 | 01/15/1998 | 1,042.18 | A98048 02/19/1998 | 1,042.18 (1) |
| | | | | ----- |
| | | | | 1,369.10 |

Footnotes

- (1) Based on the review of the Monthly Progress Reports the costs paid on vouchers no. 01501407 and 01501660 are for work efforts associated with oversight of the Focused Feasibility Study. These costs should have been billed and paid under Interagency Agreement No. DW96943751 which was amended to include oversight of the Focused Feasibility Study.

Contractor Information

INTERAGENCY AGREEMENT (IAG) No.: DW96943750-01-0
PERIOD OF PERFORMANCE: 09/12/94 to 12/31/97

SUMMARY OF WORK: Remedial Investigation/Feasibility Study (RI/FS)
Oversight, Second Operable Unit

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

INTERAGENCY AGREEMENT (IAG) COSTS

CONTRACTOR : U.S. ARMY CORPS OF ENGINEERS

CONTRACT NUMBER : DW96943750

Task 1: Background Document Review:

- USACE will perform a preliminary review of the background information to develop a basic understanding of the Site and prior response actions.

Task 2: Prepare Work Plan:

- After performing the preliminary review of the background information, USACE will develop a work plan including a project schedule and estimated budget.

Task 3: Site Visit:

- USACE will visit the site for one day to become familiar with the general site conditions.

Task 4: Meetings With EPA:

- USACE shall be available for and assist in conducting meetings with EPA or with EPA and representatives of the Potentially Responsible Parties.

Task 5: Review of PRP RI/FS Work Plan and Other Associated RI/FS Planning Documents:

- USACE will review the PRPs revised work plan to ascertain whether said document adequately outlines the remedial activities necessary to identify possible sources of contamination, characterizes the

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

INTERAGENCY AGREEMENT (IAG) COSTS

CONTRACTOR : U.S. ARMY CORPS OF ENGINEERS

CONTRACT NUMBER : DW96943750

nature and extent of contamination, and establishes the risk posed to human health and the environment by contamination at this site.

Task 6: Field Oversight/Split Sampling:

- As directed by the EPA RPM, USACE shall oversee field activities conducted by the PRPs contractor;
- USACE will prepare field trips reports describing the investigatory, sampling activities observed in the field;
- USACE will be responsible for communicating directly with the PRPs contractor regarding any changes in schedule with respect to sampling activities planned at the Site.

Task 7: Review of Interim Reports and/or Evaluation of data:

- At the request of the EPA RPM, USACE may be called upon to review and evaluate interim reports and technical field laboratory data submitted by the PRPs to ensure that activities are being conducted in accordance with the PRPS approved work plan documents and the AOC.

Task 8: Review of Remedial Investigation:

- USACE shall prepare an evaluation of the PRP's draft RI report.

Task 9: Review of Feasibility Study:

- USACE shall prepare an evaluation of the PRP's draft FS report.

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

INTERAGENCY AGREEMENT (IAG) COSTS

CONTRACTOR : U.S. ARMY CORPS OF ENGINEERS
CONTRACT NUMBER : DW96943750

Task 10: Technical Assistance:

- Throughout the life of the project, USACE will provide technical assistance to the EPA RPM on an as needed basis.

Task 11: Project Closeout:

- Once all other tasks have been completed, USACE will prepare a final project closeout report, detailing project activities and costs incurred.

IAG AMENDMENT 2: (Signed by EPA on March 15, 1996)

The purpose of this amendment is to provide additional funding to allow for oversight of field activities and technical assistance which is necessary for successful oversight of the PRP conducted Removal Action at this Site, OU2. Oversight of removal activities was not accounted for in the original SOW for this existing IAG (#DW96943750-01-0). This amendment adds funding and extends the project and budget period to December 31, 1996.

SUPPORTING DOCUMENTATION:

Copy of Interagency Agreement #DW96943750-01-0 and Statement of Work;
Copies of Interagency Agreement Amendments #1 through 4

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

INTERAGENCY AGREEMENT (IAG) COSTS

FEDERAL AGENCY : U.S ARMY CORP OF ENGINEERS
IAG NUMBER : DW96943751
PROJECT OFFICER : MELISSA WHITTINGTON
DATES OF SERVICE : FROM :09/01/1997 TO :06/30/1998
SUMMARY OF SERVICE : SEE CONTRACTOR INFO. WHICH FOLLOWS LIST OF VOUCHERS
TOTAL COSTS : \$ 4,098.15

DOCUMENTATION : Copies of Applicable Paid Vouchers and Treasury Schedules

| VOUCHER NUMBER | VOUCHER DATE | VOUCHER AMOUNT | TREASURY SCHEDULE NUMBER AND DATE | SITE AMOUNT |
|-------------------|-----------------|-------------------|--------------------------------------|----------------|
| 01501597 | 01/01/1998 | 2,894.81 | A98056 02/27/1998 | 2,894.81 |
| 36000045 | 05/01/1998 | 338.07 | A98169 06/22/1998 | 338.07 |
| 3600163 | 06/01/1998 | 865.27 | A98188 07/09/1998 | 865.27 |
| | | | | ----- |
| | | | | 4,098.15 |

Contractor Information

INTERAGENCY AGREEMENT #:DW96943751
PERIOD OF PERFORMANCE: 09/12/94 TO 12/31/98

SUMMARY OF WORK: Remedial Design Oversight (RD) (OU1)

EPA has requested that the US Army Corps of Engineers (USACE) take on the oversight work that was previously being done by a contractor in our region. Currently, a number of tasks have already been completed by the previous contractor. The work will include, among other things, reviewing the relevant background documents and completing the remaining RD oversight tasks. Four phases of work are planned for OU1, however only Phase I and Phase II will be included as part of this particular oversight assignment. The following tasks will be conducted to meet the objectives of the RD oversight project:

Task 1: Background Document Review:

CERTIFIED BY FINANCIAL MANAGEMENT OFFICE

ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

INTERAGENCY AGREEMENT (IAG) COSTS

CONTRACTOR : U.S ARMY CORP OF ENGINEERS
CONTRACT NUMBER : DW96943751

- USACE will perform a preliminary review of the background information to develop a basic understanding of the site and prior response actions.

Task 2: Prepare Work Plan:

- After performing the preliminary review of the background information, the USACE will develop a work plan including a project schedule and estimated budget.

Task 3: Site Visit:

- USACE will visit the site for one day to become familiar with the general site conditions;
- USACE will prepare and submit to EPA a brief trip report that documents the site visit activities and summarizes the current site conditions.

Task 4: Meeting with EPA:

- Shall be available for and assist in conducting meeting with EPA or with EPA and representatives of the Potentially Responsible Parties.

Task 5: Review of PRP reports:

- USACE may be required to review any or all of work plans, reports, sample results submitted by the PRP's.

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
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INTERAGENCY AGREEMENT (IAG) COSTS

CONTRACTOR : U.S ARMY CORP OF ENGINEERS
CONTRACT NUMBER : DW96943751

Task 6: Field Oversight/Split Sampling:

- A Remedial Design Work Plan will be submitted by the PRPs following the bioremediation treatability studies.

Task 7: Technical Assistance:

- USACE will provide technical assistance to the EPA RPM on an as-needed basis.

Task 8: Project Closeout:

- Once all other tasks have been completed, the USACE will prepare a final project closeout report, detailing project activities and cost incurred.

INTERAGENCY AGREEMENT AMENDMENT NO. 4: THIS AMENDMENT CHANGED
THE SCOPE OF WORK FOR THIS AGREEMENT AS FOLLOWS:

The purpose of this amendment to the Scope of Work for this existing oversight IAG with the Corps of Engineers - Nashville District (COE) is to describe the changes in the projected oversight needs for the Morgantown Ordnance Works Site, First Operable Unit (OU1), located in Morgantown, West Virginia. Up until this point, the COE has provided oversight for the first phase of a Potentially Responsible Party (PRP)-lead Remedial Design. Phase I Remedial Design has consisted primarily of Bioremediation Treatability Studies.

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FOCUSED FEASIBILITY STUDY OU #1
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INTERAGENCY AGREEMENT (IAG) COSTS

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CONTRACT NUMBER : DW96943751

At this time, based on recent treatability study data, bioremediation does not appear to be capable of treating the contaminated soils at OU1 to achieve the current cleanup standard (78 ppm total cPAHS) within a reasonable time frame. In addition, the contingency remedy selected in the 1989 ROD (soil washing) appears to be equally infeasible. As a result, the PRPs have proposed to do a Focused Feasibility Study (FFS) which will evaluate alternatives that can be implemented in an expedited fashion.

EPA and the PRPs are in the process of negotiating an Administrative Order on Consent (AOC) for an FFS which would include:
(1) detailing the work to be performed by the PRPs on the FFS and
(2) suspending the activities under the existing Administrative Order for Remedial Design/Remedial Action ("Unilateral Order" or "UAO").

This SOW amendment will expand upon Task 2 (Work Plan Preparation), Task 4 (Meetings with EPA), and Task 5 (Review of PRP Reports). All other tasks in the original SOW still pertain to this revised oversight project and shall remain the same.

The following revisions to the above mentioned tasks will be conducted to meet the revised objectives of the project:

Task 2 - Prepare a Revised Work Plan

At this time, COE staff has already reviewed background documentation on the site and are familiar with the current site conditions. The COE have experience with Feasibility Studies and are aware of the approximate level of effort that will be necessary to oversee

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
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INTERAGENCY AGREEMENT (IAG) COSTS

CONTRACTOR : U.S ARMY CORP OF ENGINEERS

CONTRACT NUMBER : DW96943751

the FFS. After reviewing this SOW amendment, COE will develop a revised work plan. The revised work plan will be submitted as a final document. Revisions to the revised work plan are not anticipated.

Task 4 - Meetings with EPA

COE shall be available for and assist in conducting meetings with EPA or with EPA and representatives of the PRPs. After each meeting, COE will submit a meeting summary documenting what transpired.

Task 5 - Review of PRP Reports and Other Deliverables

This task will not substantially change. The COE will continue to review PRP prepared reports and provide comments to EPA. However, the content of such reports/documents will now focus on feasibility study activities.

SUPPORTING DOCUMENTATION:

Interagency Agreement No. DW96943751, Statement of Work, and Interagency Agreement Amendments 1, 2, 3 and 4

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
 COSTS FROM 10/20/97 THRU 3/31/99

SITE ASSESSMENT TECHNICAL ASSISTANCE

CONTRACTOR : ROY F. WESTON, INC.
 CONTRACT NUMBER : 68-S5-3002
 PROJECT OFFICER : JOAN M. HENRY
 DATES OF SERVICE : FROM :11/22/1997 TO :07/24/1998
 SUMMARY OF SERVICE : SEE CONTRACTOR INFO. WHICH FOLLOWS LIST OF VOUCHERS
 TOTAL COSTS : \$ 17,757.49

DOCUMENTATION : Copies of Applicable Paid Vouchers and Treasury Schedules

| VOUCHER NUMBER | VOUCHER DATE | VOUCHER AMOUNT | TREASURY SCHEDULE NUMBER AND DATE | SITE AMOUNT | ANNUAL ALLOCATION |
|-------------------|-----------------|-------------------|--------------------------------------|--------------------|----------------------|
| 45 | 01/15/1998 | 867,579.25 | R8373 02/18/1998 | 1,658.61 | 1,106.86 |
| 46 | 02/13/1998 | 259,168.48 | R8458 03/17/1998 | 91.44 | 61.02 |
| 47 | 02/13/1998 | 447,621.49 | R8458 03/17/1998 | 706.21 | 471.28 |
| 48 | 03/13/1998 | 198,515.51 | R8533 04/10/1998 | 24.15 | 16.12 |
| 49 | 03/13/1998 | 687,126.42 | R8533 04/10/1998 | 4,080.32 | 2,722.97 |
| 53 | 04/20/1998 | 737,600.58 | R8634 05/18/1998 | 1,081.13 | 721.48 |
| 55 | 05/18/1998 | 626,001.90 | R8709 06/15/1998 | 469.77 | 313.50 |
| 55 | 05/18/1998 | 626,001.90 | R8709 06/15/1998 | 610.00 | 407.08 |
| 56 | 06/12/1998 | 59,097.87 | R8787 07/13/1998 | 2,365.92 | 1,578.88 |
| 57 | 06/12/1998 | 749,029.54 | R8787 07/13/1998 | 511.71 | 341.49 |
| 58 | 07/20/1998 | 18,880.96 | R8875 08/17/1998 | -925.38 | -617.54 |
| 59 | 07/20/1998 | 762,544.43 | R8875 08/17/1998 | -30.81 | -20.56 |
| 60 | 07/18/1998 | 727,194.04 | R8959 09/17/1998 | 7.10 | 4.74 |
| | | | | ----- 10,650.17 | ----- 7,107.32 |

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

SITE ASSESSMENT TECHNICAL ASSISTANCE

CONTRACTOR : ROY F. WESTON, INC.

CONTRACT NUMBER : 68-S5-3002

| VOUCHER NUMBER | SCHEDULE NUMBER | RATE TYPE | ALLOCATION RATE |
|-------------------|--------------------|-----------------------|--------------------|
| 45 | R8373 | National- Provisional | 0.667342 |
| 46 | R8458 | National- Provisional | 0.667342 |
| 47 | R8458 | National- Provisional | 0.667342 |
| 48 | R8533 | National- Provisional | 0.667342 |
| 49 | R8533 | National- Provisional | 0.667342 |
| 53 | R8634 | National- Provisional | 0.667342 |
| 55 | R8709 | National- Provisional | 0.667342 |
| 55 | R8709 | National- Provisional | 0.667342 |
| 56 | R8787 | National- Provisional | 0.667342 |
| 57 | R8787 | National- Provisional | 0.667342 |
| 58 | R8875 | National- Provisional | 0.667342 |
| 59 | R8875 | National- Provisional | 0.667342 |
| 60 | R8959 | National- Provisional | 0.667342 |

Contractor Information

TECHNICAL DIRECTION DOCUMENT (TDD) NO.: 03-9712-0002
PERIOD OF PERFORMANCE: 12/09/97 to 12/31/97

DESCRIPTION OF WORK:

Sample 6 monitoring wells. Obtain analytical analyses of these
6 ground water samples. Parameters: ENAs, Heavy Metals, & VOCs.

TDD NO. 03-9712-0002A: This TDD amends 03-9712-0002

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

SITE ASSESSMENT TECHNICAL ASSISTANCE

CONTRACTOR : ROY F. WESTON, INC.

CONTRACT NUMBER : 68-S5-3002

Justification: Additional hours added because a very detailed sampling plan was needed to be developed for the PRP/split sampling that was to be performed.

TDD NO.: 03-9801-0046
PERIOD OF PERFORMANCE: 01/06/98 to 04/30/98

DESCRIPTION OF WORK:

Continue work performed under TDD 9712-0002. Make revisions to work plan (previously developed by SATA). Complete development of onsite monitoring wells. Arrange for disposal of purged water from development procedures. Repair outer and inner casing lids, collect split samples.

TDD NO. 03-9801-0046A: This TDD amends TDD No. 03-9801-0046

Justification: Additional hours needed to cover additional oversight and split sampling due to the problems encountered by the PRPs contractor. This involves low well yields and the purging/sampling process taking longer than anticipated. A more detailed trip report will also be required.

TDD NO. 03-9801-0046B: This TDD amends TDD No. 03-9801-0046A

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FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

SITE ASSESSMENT TECHNICAL ASSISTANCE

CONTRACTOR : ROY F. WESTON, INC.

CONTRACT NUMBER : 68-S5-3002

Justification: Additional hours needed to complete trip report
which includes scanning a map and to evaluate split sampling data.

TDD NO.: 03-9801-L001
PERIOD OF PERFORMANCE: 01/26/98 to 02/26/98

DESCRIPTION OF WORK:

Analytical Service - Arrange for analysis of 1 water sample
for TCL organics, 1 water sample for TAL metals.

This TDD is in conjunction with TDD No. 03-9801-0046.

SUPPORTING DOCUMENTATION: Copies of Technical Direction Documents and
Acknowledgments of Completion

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

STATE COOPERATIVE AGREEMENT (SCA) COSTS

STATE AGENCY : WV DIV OF NATURAL RESOURCES
SCA NUMBER : 99340301
PROJECT OFFICER : ALLAN HOLLIS
DATES OF SERVICE : FROM :10/01/1997 TO :03/31/1999
SUMMARY OF SERVICE : SEE CONTRACTOR INFO. WHICH FOLLOWS LIST OF VOUCHERS
TOTAL COSTS : \$ 16,476.00
DOCUMENTATION : Copies of Applicable Paid Vouchers and Treasury Schedules

| VOUCHER NUMBER | VOUCHER DATE | VOUCHER AMOUNT | TREASURY SCHEDULE NUMBER AND DATE | SITE AMOUNT |
|-------------------|-----------------|-------------------|--------------------------------------|----------------|
| 556000763 | 10/22/1997 | 1,764.00 | G97296A 10/23/1997 | 795.00 |
| 556000763 | 11/18/1997 | 1,746.00 | G97324A 11/20/1997 | 1,731.00 |
| 556000763 | 12/17/1997 | 5,532.00 | G97352A 12/18/1997 | 1,365.00 |
| 556000763 | 12/19/1997 | 1,181.00 | G97356A 12/22/1997 | 1,181.00 |
| 556000763 | 01/23/1998 | 9,050.00 | G98026A 01/26/1998 | 2,515.00 |
| 556000763 | 02/23/1998 | 5,622.00 | G98056A 02/25/1998 | 2,320.00 |
| 556000763 | 03/11/1998 | 6,740.00 | G98072A 03/13/1998 | 464.00 |
| 556000763 | 04/21/1998 | 4,112.00 | G98111A 04/21/1998 | 1,069.00 |
| 556000763 | 05/20/1998 | 6,209.00 | G98141A 05/21/1998 | 2,616.00 |
| 556000763 | 07/20/1998 | 3,699.00 | G98202A 07/21/1998 | 1,609.00 |
| 556000763 | 08/21/1998 | 811.00 | G98236A 08/24/1998 | 811.00 |
| | | | | ----- |
| | | | | 16,476.00 |

Contractor Information

EPA ASSISTANCE AGREEMENT NO.: V 993403-01-0
PERIOD OF PERFORMANCE: 10/01/95 to 09/30/97

DESCRIPTION OF WORK: MORGANTOWN ORDNANCE WORKS, RI/FS OU#2

Remedial Investigation/Feasibility Study

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ORDNANCE WORKS, WV SITE ID = 03 B5

FOCUSED FEASIBILITY STUDY OU #1
COSTS FROM 10/20/97 THRU 3/31/99

STATE COOPERATIVE AGREEMENT (SCA) COSTS

CONTRACTOR : WV DIV OF NATURAL RESOURCES

CONTRACT NUMBER : 99340301

Tasks:

- Review, comment and concur on all documents and relevant correspondence for all phases of the RI/FS activities submitted by the lead agency, their contractors, or any other entity involved with the remediation effort at the site.
- Split and analyze samples with EPA or other contractors when deemed necessary.
- Conduct investigative and /or confirmation sampling events when deemed necessary.
- Have a representative attend meetings concerned with RI/FS activities for the site, including, but not limited to, planning meetings, design strategy meetings, public hearings, and Advisory Group meetings.
- Have a representative conduct site visits as deemed appropriate or necessary for the RI/FS effort.
- Provide oversight for field activities when deemed appropriate or necessary, or at EPA-III's request.
- Provide public relations support when necessary for public meetings, press inquiries, press releases, or similar activities.

SUPPORTING DOCUMENTATION: Copy of EPA Assistance Agreement
No. V993403-01 and Statement of Work; Copy of Assistance Agreement

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